

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PCT-05T-210	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/JP2005/007673	International filing date (<i>day/month/year</i>) 22.04.2005	Priority date (<i>day/month/year</i>) 27.07.2004
International Patent Classification (IPC) or national classification and IPC C02F1/46, D06F39/00, 39/08		
Applicant SHARP KABUSHIKI KAISHA		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>6</u> sheets, as follows: <input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2005/007673

Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☒ the international application in the language in which it was filed
- ☐ the translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rule 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (
- replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*
-):

- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1, 2, 5-18 as originally filed/furnished
- pages* 3-4 received by this Authority on 2005.11.02
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. 7, 11, 13 as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-6, 8-10, 12, 14-16 received by this Authority on 2005.11.02
- nos.* _____ received by this Authority on _____
- ☒ the drawings:
- sheets 1-7, 9-12 as originally filed/furnished
- sheets* 8 received by this Authority on 2005.11.02
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

- 3.
- ☒
- The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☒ the claims, nos. 17
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

- 4.
- ☐
- This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>1-16</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-16</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-16</u>	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
<p>Document 1: JP 2002-81121 A (Toto Co., Ltd.), 22 March 2002, column 2, lines 40 to 42; column 2, line 50 to column 3, line 41; column 4; column 35, line 2; column 5, lines 17 to 19; column 5, lines 28 to 31; column 5, lines 44 to 48; column 6, lines 31 to 46 (Family: none)</p> <p>Document 2: JP 2000-126775 A (Toto Co., Ltd.), 9 May 2000, column 3, lines 5 to 17; column 4, lines 17 to 24 (Family: none)</p> <p>Document 3: JP 2002-219463 A (Mitsubishi Plastics, Inc.), 6 August 2002, column 3, lines 6 to 25 (Family: none)</p> <p>Document 4: JP 2004-173717 A (Sharp Corporation), 24 June 2004, page 2, line 50 to page 3, line 16 & WO 2004/045278 A1 & KR 004045340 A</p> <p>The inventions set forth in claims 1 to 16 involve an inventive step. It would not be easy for a person skilled in the art to conceive of a "metal ion elution unit, wherein the period of time from when the polarity of the voltage is inverted to when the subsequent inversion of polarity of the voltage occurs is divided up</p>			

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

into a first mode and a second mode, and the current in the second mode is smaller than the current in the first mode".